

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 7-12 are drawn to a patentably distinct invention now cancelled without prejudice or disclaimer.

Claims 1-6 are amended below to overcome formality-based grounds of rejection:

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1. (Currently Amended) A multilayered gas sensing element comprising:  
laminated layers comprising ~~a zirconia series~~ at least one solid electrolytic sheet  
containing zirconia and ~~an alumina series~~ at least one insulating sheet containing alumina,  
a bonding boundary intervening between said ~~zirconia series~~ solid electrolytic  
sheet and said ~~alumina series~~ insulating sheet, and  
said bonding boundary including at least partly a crystal phase containing silicon  
dioxide.

add silicon or wa  
other impurity  
(see 5,122,487)

2. (Currently Amended) ~~The~~ A multilayered gas sensing element as in  
~~accordance with~~ claim 1, where said crystal phase further contains at least one component  
selected from the group consisting of: calcium oxide, magnesium oxide, barium oxide,  
and strontium oxide.

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3. (Currently Amended) ~~The~~A multilayered gas sensing element as in ~~accordance with~~ claim 1, where said bonding boundary between said ~~zirconia-series~~ solid electrolytic sheet and said ~~alumina-series~~ insulating sheet is undulated.

4. (Currently Amended) ~~The~~A multilayered gas sensing element as in ~~accordance with~~ claim 1, where a crystal lattice of said ~~zirconia-series~~ solid electrolytic sheet is connected to a crystal lattice of said ~~alumina-series~~ insulating sheet in said bonding boundary.

5. (Currently Amended) ~~The~~A multilayered gas sensing element as in ~~accordance with~~ claim 1, wherein a thermal expansion coefficient difference between said ~~zirconia-series~~ solid electrolytic sheet and said ~~alumina-series~~ insulating sheet is equal to or less than  $2 \times 10^{-6}$ .

6. (Currently Amended) ~~The~~A multilayered gas sensing element as in ~~accordance with~~ claim 1, wherein a sintering contraction coefficient difference between said ~~zirconia-series~~ solid electrolytic sheet and said ~~alumina-series~~ insulating sheet is equal to or less than 3%.

Claims 7-12 cancelled.

Please add new claim 13:

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Appl. No. 09/873,287  
July 14, 2003

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13. (New) A multilayered gas sensing element as in claim 1, where said solid electrolytic sheet contains yttria.

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